

Reel 5-6-43, B.H.P.

MACHINE DESIGN

INDEX TO VOLUME I

September to December, 1929

A

Adjustment:

In automatic idler for chain drives, Oct., p.35.

Airplane:

Engine mounting in, Dec., p.13.

Alloys:

Description of, Oct., p.43.

Light, progress in use of, Nov., p.45.

Rustless, composition of, Oct., p.43.

Tungsten carbide, description of, Oct., p.43.

American Gear Manufacturers association:

Report on progress in standardization of gears, Nov., p.20.

American Society of Mechanical Engineers:

Officers nominated, Sept., p.17.

American Standards association:

Activities of, Sept., p.37.

Archimedes and His Spiral Pump:

An illustration by Schroeder, Oct., p.41.

Automatic Machines:

Adjustments in, test skill of designers, Sept., p.9.

Automobiles:

Revolutionary design in, Dec., p.10.

Washer for tops of, Dec., p.16.

Axle:

Front-wheel drive, design of, Oct., p.11.

B

Bases:

Welding of machinery, Sept., p.17.

Bearings:

Antifriction, effective lubrication of, Oct., p.32.

Antifriction, use of, in steering gear, Nov., p.46.

Ball, description of self-sealing features in, Nov., p.50.

Motor, influence of dust in wear of, Nov., p.41.

Roller type, application of, Sept., p.51.

Rubber as a material for, Dec., p.16.

Belts:

Calculating costs of, and pulleys as complete unit, Sept., p.31.

Data table of minimum pulley diameters, Sept., p.31.

Description of types, Sept., p.31.

Endless cord type, announcement of new, Dec., p.56.

Table for choice of, Sept., p.33.

Bending:

Moments, fundamentals of, Oct., p.18.

Biographical Sketches:

Baker, Henry, Nov., p.48.

Chapman, Cloyd M., Sept., p.42.

Church, H. D., Nov., p.48.

Clements, F. O., Nov., p.48.

Cooper, Ralph S., Dec., p.52.

Deisher, J. B., Nov., p.48.

Dornier, Dr. Claude, Dec., p.52.

Flanders, R. E., Oct., p.46.

Freers, George H., Dec., p.52.

Horner, Col. L. S., Oct., p.46.

Johnson, Carl A., Dec., p.52.

Kimball, Dean D. S., Dec., p.52.

Lane, Kenneth M., Oct., p.46.

Lawrance, Charles L., Sept., p.42.

Little, Thomas J., Nov., p.48.

Lothrop, Marcus T., Sept., p.42.

Lynch, Tillman D., Oct., p.46.

Merrick, F. A., Sept., p.42.

McCauley, John E., Dec., p.52.

Moskovics, F. E., Sept., p.42.

Piez, Charles, Sept., p.42.

Rolfing, R. C., Nov., p.48.

Tuechter, A. H., Oct., p.46.

Vincent, J. G., Oct., p.46.

Blueprint Machine:

Description of, Sept., p.52.

Book Reviews:

"Creep of Steel at High Temperatures," by F. H. Norton, Nov., p.60.

"Machine Design," by P. H. Hyland and J. B. Kommers, Dec., p.59.

"Machine Shop Practice," published by American Technical society, Chicago, Oct., p.60.

"Men and Machines," by Stuart Chase; reviewed by H. Cole Estep, Sept., p.39.

"Motor Vehicles and Tractors," by P. M. Heldt, Dec., p.59.

"Principles of Metallurgy of Ferrous Metals," by Leon Cammen, Nov., p.60.

"Production Design," by J. K. Olsen, Oct., p.60.

Brakes:

Hydraulic type, Sept., p.51.

Bread Wrapping Machine:

Experience in design of, Sept., p.9.

Baker, Henry:

Biographical sketch of, Nov., p.48.

Business, How Is?:

Discussion of trend, Sept., p.54; Oct., p.52; Nov., p.52; Dec., p.51.

C

Cams:

Design of, in bread wrapping machine, Sept., p.13.

Design of, from standpoint of stress analysis, Dec., p.18.

Employing practical suggestions for layouts of, Oct., p.37.

Carbon Steels:

Presence of pearlite in, Oct., p.25.

Castings:

- Ease of replacement, Sept., p.27.
- Gray iron, application of, Oct., p.22.
- Physical properties of, Sept., p.27.

Chain Drives:

- Adjustment as vital factor of, Oct., p.35.

Chapman, Cloyd M.:

- Biographical sketch of, Sept., p.42.

Chemical:

- Proportioner for, Sept., p.46.

Church, H. D.:

- Biographical sketch of, Nov., p.48.

Cigar Sorting Machine:

- Design of, Sept., p.18.

Clements, F. O.:

- Biographical sketch of, Nov., p.48.

Clutches:

- Disk, multiple type, Sept., p.52.
- Twin disk type, announcement of new, Dec., p.56.
- Unidirectional, description of, Oct., p.45.

Compressors:

- Design of, Dec., p.30.

Contributors:

- Avey, Dan M., Sept., p.26.
- Bolton, John W., Oct., p.22.
- Candee, Allan H., Sept., p.20.
- Dyson, Ralph, Oct., p.35.
- Estep, H. Cole, Sept., p.18.
- Ferenci, Lester, Sept., p.18.
- Flodin, John, Sept., p.18; Dec., p.18.
- Hardecker, John F., Sept., p.22; Oct., p.27; Nov., p.26; Dec., p.33.
- Henderson, E. W., Dec., p.38.
- Hoskins, Chapin, Nov., p.21; Dec., p.26.
- Jacobs, Fred B., Oct., p.37.
- Jermy, L. E., Sept., p.9; Dec., p.9.
- Kinthead, Robert E., Sept., p.14.
- Martenis, Prof. John V., Oct., p.15; Nov., p.13.
- Moore, F. H., Nov., p.35.
- Reynolds, Harry R., Oct., p.32.
- Trofimov, L. A., Dec., p.24.
- Watson, Wilbur J., Nov., p.9.
- Wolf, Austin M., Oct., p.9.

Cooper, Ralph S.:

- Biographical sketch, Dec., p.52.

Costs:

- Calculation of, on belt and pulleys, Sept., p.31.

Coupling:

- Shaft, announcement of new, Dec., p.55.

Cylinders:

- Micromatic hone for, Dec., p.17.
- Welding shrouding for airplane, Sept., p.15.

D**Deisher, J. B.:**

- Biographical sketch of, Nov., p.48.

Design:

- Airplane, Noteworthy innovations in, Dec., p.13.
- Bread wrapping machine, Sept., p.9.
- Cams from standpoint of stress analysis, Dec., p.18.
- Cams, suggestions for design of, Oct., p.37.
- Cigar sorting machine, Sept., p.18.
- Compressor, solving problems in, Dec., p.30.
- Co-partnership in, Nov., p.29.
- Developments in, of metal cutting machines, Nov., p.38.
- Drive and control of 600-ton hangar doors, Nov., p.9.
- Economy in belt drive, Sept., p.34.
- Front-wheel drives, solving problems in, Oct., p.9.
- Fundamentals of, Oct., p.15.
- How field facts help sales and, Nov., p.21; Dec., p.26.
- Importance of style in, Dec., p.9.

Malleable castings in, Nov., p.33.

Of silent chain drives, Oct., p.35.

Rapid progress of development in, Nov., p.22.

Welded machine bases, Sept., p.17.

Welded steel frames, Sept., p.48.

Design Changes:

System for recording, Dec., p.35.

Design Department:

- How, benefits from contacts of sales staff, Oct., p.42.
- Orders, conveyance of, Oct., p.27.
- Organization and supervision of, Part 1, Sept., p.22; Oct., p.27; Nov., p.26; Dec., p.33.
- Personnel, selection of, Sept., p.24.
- Procedure for new designs, Nov., p.27.
- Rules and regulations in, Dec., p.33.
- System, importance of, Oct., p.27.

Design Work:

Scheduling of major, Oct., p.28.

Designer:

Qualifications of, Oct., p.15.

Development Engineer:

Discussion on, Dec., p.24.

Discussions:

- Advocates accuracy and economy in setting tolerances, Sept., p.36.
- Suggests modification of method for obtaining harmonic curve, Dec., p.23.

Disk-type Cams:

Generation of, Oct., p.37.

Dornier, Dr. Claude:

Biographical sketch, Dec., p.52.

Drafting Room Equipment:

Choice of, Sept., p.25.

Drawings:

How correct, save time, money and effort, Dec., p.42.

Drives:

- Belt, description of, Sept., p.31.
- Design of, for 600-ton hangar doors, Nov., p.9.
- Front-Wheel, Oct., p.9.
- Silent chain, design of, Oct., p.35.

Ductility:

Discussion of, malleable castings, Nov., p.32.

Eccentrics:**E**

Employment of, Sept., p.51.

Editorials:

- Broaden Your Perspective, Nov., p.42.
- Consult the Parts Makers, Oct., p.40.
- Esthetics in Machines, Dec., p.46.
- Introducing New Models, Sept., p.38.
- Keep Posted on Fatigue, Nov., p.42.
- Seldom Right First Time, Oct., p.40.
- The Challenge to Design, Sept., p.38.
- Unit or Assembly, Dec., p.46.

Electric Eye:

Use of, in cigar sorting machine, Sept., p.18.

Engineering Department:

- Organization of, Sept., p.22; Oct., p.27; Nov., p.26; Dec., p.33.
- See also design department.

Estep, H. Cole:

Obituary, Oct., p.48.

F**Fastenings:**

- Pin, use in 600-ton hangar doors, Nov., p.12.
- Screwed and riveted, stresses in, Nov., p.13.

Fatigue:

Study of, in metals yields data, Nov., p.35.

Feeders:

Automatic lubrication, description of, Sept., p.51.

Flanders, R. E.:

Biographical sketch of, Oct., p.46.

Force:

Analysis, in cam design, Dec., p.20.

Frame:

Automobile, change in design of, for front-wheel drive, Oct., p.14.

Freers, George H.:

Biographical sketch of, Dec., p.52.

Front-Wheel Drives:

Overcoming design problems in, Oct., p.9.

G**Gears:**

Herringbone, application of, in automobile transmission, Nov., p.46.

Hypoid, afford interesting possibilities in design, Sept., p.20.

Recommended practice for herringbone type adopted, Dec., p.44.

Report on progress in standardization of, Nov., p.20.

Roller bearing mounted, in steering mechanism, Nov., p.46.

Use on 600-ton hangar doors, Nov., p.11.

Gravity Curve:

As employed for fast cams, Oct., p.39.

Gray Iron:

Formation and properties, study of, Oct., p.23.

Properties of, Sept., p.29.

Wearing qualities of, Oct., p.26.

Whys and wherefores of, Oct., p.22.

Gray Iron Castings:

How, meet designer's needs, Sept., p.26.

Great Moments in Machine Design:

Archimedes and His Spiral Pump, Oct., p.41.

Elias Howe and His Sewing Machine, Dec., p.47.

James Watt and His Steam Engine, Sept., p.7.

Wright Brothers and Their Airplane, Nov., p.43.

H**Hangar Doors:**

Designing drive and control for, Nov., p.9.

Harmonic Curve:

Description of, as useful cam motion, Oct., p.39.

Modification of, method for, Dec., p.23.

Heat Treatment:

Effect on carbon steel, Nov., p.37.

Herringbone Gears:

Recommended practice for, adopted, Dec., p.44.

Hone:

Description of, for cylinder bores, Dec., p.17.

Horner, Col. L. S.:

Biographical sketch of, Oct., p.46.

Howe, Elias, and His Sewing Machine:

An illustration by Schroeder, Dec., p.47.

How Is Business?:

Discussion of, Sept., p.54; Oct., p.52; Nov., p.52; Dec., p.51.

Hypoid Gears:

Discussion of, Sept., p.20.

I**Ideas:**

Scanning the field for, Sept., p.46; Oct., p.43; Nov., p.44; Dec., p.13.

Index:

Importance of, in design library, Dec., p.37.

Inertia:

Moment of, Oct., p.19.

J**Johnson, Carl A.:**

Biographical sketch of, Dec., p.52.

Joints:

Butt, triple riveted, analysis of, Nov., p.16.

Lap, double riveted, analysis of, Nov., p.15.

Lap, single riveted, analysis of, Nov., p.14.

Riveted, design of, Nov., p.14.

Universal, design of, in front-wheel drives, Oct., p.9.

K**Kimball, Dean, D. S.:**

Biographical sketch of, Dec., p.52.

L**Lane, Kenneth M.:**

Biographical sketch of, Oct., p.46.

Lathe:

Hydraulic automatic, description of, Oct., p.44.

Lawrance, Charles L.:

Biographical sketch of, Sept., p.42.

Little, Thomas J.:

Biographical sketch of, Nov., p.48.

Lothrop, Marcus T.:

Biographical sketch of, Sept., p.42.

Lubrication:

Centralized pressure system, Sept., p.51.

Effective method for antifriction bearings, Oct., p.32.

Three-point system for automatic chassis, Nov., p.47.

Lynch, Tillman D.:

Biographical sketch of, Oct., p.46.

M**Machineability:**

Discussion of, in malleable castings, Nov., p.32.

Machinery Bases:

Welding of, Sept., p.17.

Machinery:

Industrial, style in design of, Dec., p.10.

Machine Frames:

Departure in design of, Sept., p.48.

Machine Tool Builders' association:

Announcement of 1932 machine tool show, Nov., p.41.

Malleable Cast Iron:

Early use of, Sept., p.29.

Properties of, Sept., p.29.

Malleable Castings:

Properties of, Nov., p.31.

Manufacturers' Publications:

Compilation of, Sept., p.62; Oct., p.62; Nov., p.62; Dec., p.62.

Materials:

Physical properties of, table, Oct., p.17.

McCauley, John E.:

Biographical sketch of, Dec., p.52.

Mechanical Principles:

Timely re-statement of, Oct., p.15; Nov., p.13.

Merrick, F. A.:

Biographical sketch of, Sept., p.42.

Metals:

Study yields data of fatigue in, Nov., p.35.

Moskovics, F. E.:

Biographical sketch of, Sept., p.42.

Motors:

Across-the-line starter for, Nov., p.47.

Effect of linestart type on design, Dec., p.38.

Shielded, use of, Nov., p.39.

Turbulent head for, Nov., p.47.

N**Noise:**

Eliminating, in cam action of bread wrapping machine, Sept., p.13.

Noteworthy Patents:

Description of, Sept., p. 56; Oct., p.54; Nov., p.53; Dec. p.48.

Nut:

Locking pin type, announcement of new, Dec., p.56.

O

Oil:

Advantages and disadvantages of, in antifriction bearing, Oct., p.33.

P

Patents, Noteworthy:

Bearing, Nov., p.54.

Bearing housing, Oct., p.54.

Clamping mechanism for movable arm on radial drill, Dec., p.49.

Gear wheel, flexible, Sept., p.58.

Pack-opening machine, Sept., p.56.

Rotor, fluid pressure type, Oct., p.56.

Valve, constant clearance, Nov., p.53.

Wheels, locomotive driving, Nov., p.54.

Wire feeding mechanism for automatic arc welding machine, Dec., p.48.

Personal Items:

Mention of, Sept., p.42; Oct., p.48; Nov., p.50; Dec., p.54.

Personnel:

Selection of drafting room, Sept., p.24.

Photoelectric Cell:

Use of, for cigar sorting, Sept., p.18.

Physical Properties:

Table of materials relating to, Oct., p.17.

Piez, Charles:

Biographical sketch of, Sept., p.42.

Pneumatic Feed:

Employment of, on automatic lathe, Oct., p.44.

Power Transmission:

As major problem in front-wheel drives, Oct., p.11.

Production Department:

Copartnership with design department, Nov., p.29.

Press:

Use of, in molding plastic materials, Dec., p.17.

Welded design of, Sept., p.48.

Pressure:

Influence of unbalanced, on design, Nov., p.30.

Proportioner:

Chemical, design of, Sept., p.48.

Pulleys:

Minimum diameter of, for treated fabric and friction belting, Sept., p.31.

R

Redesign:

Necessitated by unbalanced pressure, Nov., p.30.

Replacement of Castings:

Ease of, Sept., p.27.

Reports:

Field, as basis for design, Oct., p.49.

Research Engineer:

Discussion on, Dec., p.24.

Rolfing, R. C.:

Biographical sketch of, Nov., p.48.

Roller Chain:

Announcement of new, Dec., p.55.

S

Safety Stop:

Design of, in bread wrapping machine, Sept., p.11.

Sales and Design:

How field facts help, Nov., p.21; Dec., p.26.

Sales:

Contacts, advantage of, Nov., p.25.

Staff contacts, as benefit to design department, Oct., p.42.

Scale:

Telepose, design of, Sept., p.46.

Schedule Sheet:

Specimen of drafting room, Oct., p.30.

Springs:

Description of stacked disks, Dec., p.17.

Eliminating failures in, on bread wrapping machines, Sept., p.10.

Standardization:

As aid to design, Oct., p.31.

Benefits to design, Sept., p.37.

In drafting room, discussion of, Oct., p.29.

Of gears, report on progress in, Nov., p.20.

Starter:

Across-the-line, use of, with direct-current motors, Nov., p.47.

Starting:

Of automobiles with front-wheel drives, Oct., p.13.

Steel Castings:

Use of welding in conjunction with, Sept., p.15.

Steel Founders' Society of America:

Election of officers, Nov., p.34.

Street Car:

Unique control of, Nov., p.45.

Stresses:

Analysis of, in cam design, Dec., p.20.

As encountered in machine practice, Oct., p.18.

In riveted and screwed fastenings, Nov., p.13.

Localized, discussion of, in parts, Nov., p.36.

Sulphur:

In Gray iron castings, Oct., p.25.

Style:

In design of machines, Dec., p.9.

T

Threads:

Screw, discussion of, Nov., p.18.

Tools:

Cutting, for high speed service, Oct., p.43.

Topics of the Month:

Compilation of, Dec., p.60.

Torque:

Characteristics of, in linestart motors, Dec., p.39.

Torsion:

Description of and where found, Oct., p.20.

Transmissions:

Automobile, use of herringbone gears in, Nov., p.46.

Variable four speed type, Oct., p.21.

V-disk type, announcement new application, Dec., p.55.

Tuechter, A. H.:

Biographical sketch of, Oct., p.46.

U

Universal Joints:

Design of, in front-wheel drive automobiles, Oct., p.9.

V

Velocity:

Plotting of, in designing cams, Dec., p.22.

Vincent, J. G.:

Biographical sketch of, Oct., p.46.

W

Watt, James, and His Steam Engine:

An illustration by Schroeder, Sept., p.7.

Welding:

Machine parts, advantages of, Sept., p.17.

When should, be employed in machine design, Sept., p.14.

Weight:

Transfer of, in front-wheel drives, Oct., p.11.

World Engineering Congress:

Hydraulic feeds discussed at, Dec., p.41.

Wright Brothers and Their Airplane:

An illustration by Schroeder, Nov., p.43.

